

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Terry D. Perkinson

Examiner:

McNally, Michael S.

Serial No. 10/804,832

Art Unit: 2136

Filing Date: March 17, 2004

Attorney Docket No.: 10041.000100

Title: Method and Apparatus for a Hybrid Network Service

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Commissioner of Patents

P.O. Box 1450

Alexandria, VA 22313-1450

**APPEAL BRIEF FILED UNDER 37 C.F.R. § 41.37**

Sir:

A Notice of Appeal was filed on May 12, 2009 for the above-referenced application. This submission is an Appeal Brief in connection with that Notice of Appeal.

This is the second appeal brief filed in this application. The first appeal brief, filed on December 8, 2008, did not reach the Board of Patent Appeals and Interferences (the "Board") as it resulted in issuance of another office action. Therefore, it is believed that no additional fee is required. However, if for any reason additional fees are required with this submission, the Commissioner is hereby authorized to charge the insufficiency to Deposit Account No. 50-2427.

I. REAL PARTY IN INTEREST

On information and belief, the real party in interest is Riavo Systems, Inc., a Delaware corporation, having a place of business at 411 Taggart Court, Roseville, California 95678.

II. RELATED APPEALS AND INTERFERENCES

On information and belief, there are no appeals, interferences, or judicial proceedings known to the appellant, the appellant's legal representative, or assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board of Patent Appeals and Interferences (the "Board") decision in the pending appeal.

III. STATUS OF CLAIMS

A. Total Claims: 1-28

B. Current Status of Claims:

1. Claims canceled: 6 and 10
2. Claims withdrawn: none
3. Claims pending: 1-5, 7-9, and 11-28
4. Claims allowed: none
5. Claims rejected: 1-5, 7-9, and 11-28
6. Claims objected to: none

C. Claims on Appeal: 1-5, 7-9, and 11-17

As indicated above, claims 1-5, 7-9, and 11-28 are pending in this application and stand rejected in the office action mailed February 17, 2009 ("the latest office action"). The rejections of claims 1-5, 7-9, and 11-17 are being appealed.

#### IV. STATUS OF AMENDMENTS

The latest amendment was filed on December 5, 2008.

No amendment has been filed subsequent to the latest office action.

#### V. SUMMARY OF CLAIMED SUBJECT MATTER

The claimed subject matter relates to home networking and communications.

Independent claim 1 relates to an apparatus for data transfer (Fig. 2, described on page 15, line 6 through page 18, line 3). A plurality of nodes (HNS Boxes 206 and 207 in Fig. 2) are configured to be communicatively interconnected by both a first network which is a wireless home network (wireless network 109 in Fig. 2) and a second network which is a wired home network (home electrical wiring network 108 in Fig. 2). Secured data is transferred between at least two nodes of said plurality of nodes on said first network only if said at least two nodes also exist on said second network (page 6, lines 15-16; page 15, lines 4-5; page 17, lines 14-15; page 19, lines 7-9; original claim 1).

#### VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds of rejection are to be reviewed on appeal:

1. Rejection of claims 1-5, 7-9, and 13-17 under 35 U.S.C. § 103 (a) as being unpatentable over Ophir et al. (U.S. Patent Application Publication No. 2005/0034159, hereinafter “Ophir”) in view of Hakkarainen et al. (U.S. Patent Application Publication No. 2003/0147532, hereinafter “Hakkarainen”); and

2. Rejection of claims 11-12 under 35 U.S.C. § 103 (a) as being unpatentable over Ophir in view of Hakkarainen further in view of Pierce et al. (U.S. Patent No. 5,467,398, hereinafter “Pierce”).

## VII. ARGUMENT

Appellant respectfully traverses the aforementioned rejections of claims 1-5, 7-9, and 11-17 in the latest office action for the following reasons.

### **A. Argument against the rejection of claims 1-5, 7-9, and 13-17 under 35 U.S.C. § 103 (a) as being unpatentable over Ophir in view of Hakkarainen**

Claims 1-5, 7-9, and 13-17 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over Ophir in view of Hakkarainen. This rejection is respectfully traversed.

Claim 1 recites as follows.

1. An apparatus for data transfer comprising:
  - a plurality of nodes that are configured to be communicatively
    - interconnected by both a first network which is a wireless home network and a second network which is a wired home network,
  - wherein secured data is transferred between at least two nodes of said plurality of nodes on said first network only if said at least two nodes also exist on said second network.**

(Emphasis added.)

As seen above, claim 1 expressly recites, **“wherein secured data is transferred between at least two nodes of said plurality of nodes on said first network only if said at least two nodes also exist on said second network.”** (Emphasis added.)

The latest office action asserts that Figs. 1 and 6 and paragraphs 14-19 and 25-37 of Hakkarainen discloses this claim limitation (see page 6, lines 3-4 of the latest office action). Appellant respectfully traverses this assertion.

As asserted in the latest office action, “In order for the service provider to transmit data on the broadcast channel, it is required that the client be connected to the

service provider on the interaction channel.” (Latest office action, page 6, lines 5-6.) Hakkarainen also refers to the broadcast channel as the “unidirectional channel” and the interaction channel as “the bidirectional channel” (see paragraph 14).

However, appellant respectfully submits that, per the cited disclosure of Hakkarainen, the bidirectional channel 14 is used to merely authenticate the client **prior** to transmitting data via the unidirectional channel 16. However, the service provider (i) **does not check whether the connection to the client via the bidirectional channel is maintained** in order to continue the data transfer, and (ii) **actually re-connects to the client via the bidirectional channel** if a new seed and synchronization information is needed.

First, there is no disclosure in Hakkarainen that the service provider checks to see whether the client is still connected to the bidirectional channel to continue the data transfer. Rather, Hakkarainen teaches that the security of the data transfer is maintained by transmitting updated decryption information from the service provider to the client over the unidirectional channel. (Paragraph 19, lines 14-17, “The process of providing updated decryption information over the unidirectional network 16 is repeated at each micro period to the extent necessary until the service has ended “)

Second, Hakkarainen expressly teaches **re-connecting** over the bidirectional network to obtain new seed and synchronization information. As recited on paragraph 19, lines 17-23 (emphasis added), “In an alternative embodiment, however, if the service does not end with the last micro period of the current macro period, the service provider 10 may require the client 12 to re-connect to it via the bi-directional channel 16 to obtain a new seed and synchronization information to enable it to continue decrypting the service.” The need to re-connect over the bi-directional channel is contrary to the claim limitation that “secured data is transferred between at least two nodes of said plurality of nodes on said first network only if said at least two nodes also exist on said second network.” (Emphasis added.)

Therefore, appellant respectfully submits that Hakkarainen does not teach that “secured data is transferred between at least two nodes of said plurality of nodes on said first network **only if said at least two nodes also exist on said second network.**” On the contrary, Hakkarainen expressly teaches **re-connecting** over the bidirectional

network to obtain new seed and synchronization information for continuation of the data transfer.

Therefore, appellant respectfully submits that claim 1 overcomes this rejection. Claims 2-5, 7-9, and 13-17 depend from claim 1. Hence, claims 2-5, 7-9, and 13-17 also overcome this rejection.

**B. Argument against the rejection of claims 4-5, 7-9 and 13 under 35 U.S.C. § 103 (a) as being unpatentable over Ophir in view of Hakkarainen**

Claims 4-5, 7-9 and 13 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over Ophir in view of Hakkarainen. This rejection is respectfully traversed.

Claim 4 depends from claim 1. Claim 4 further recites, “The apparatus of claim 1 wherein said at least two nodes exist on said second network for the entire period of said data transfer across said first network.” (Emphasis added.)

The latest office action asserts that Figs. 1 and 6 and paragraphs 14-19 and 25-37 of Hakkarainen discloses this claim limitation (see page 6, lines 3-4 of the latest office action). Appellant respectfully traverses this assertion.

Appellant respectfully submits that, per the cited disclosure of Hakkarainen, the bidirectional channel 14 is used to merely authenticate the client **prior** to transmitting data via the unidirectional channel 16. However, the service provider **(i) does not check whether the connection to the client via the bidirectional channel is maintained** in order to continue the data transfer, and **(ii) actually re-connects to the client via the bidirectional channel** if a new seed and synchronization information is needed.

First, there is no disclosure in Hakkarainen that the service provider checks to see whether the client is still connected to the bidirectional channel to continue the data transfer. Rather, Hakkarainen teaches that the security of the data transfer is maintained by transmitting updated decryption information from the service provider to the client over the unidirectional channel. (Paragraph 19, lines 14-17, “The process of providing updated decryption information over the unidirectional network 16 is repeated at each micro period to the extent necessary until the service has ended “)

Second, Hakkarainen expressly teaches that **re-connecting** over the bidirectional network to obtain new seed and synchronization information. As recited on paragraph 19, lines 17-23 (emphasis added), “In an alternative embodiment, however, if the service does not end with the last micro period of the current macro period, the service provider 10 may require the client 12 to re-connect to it via the bi-directional channel 16 to obtain a new seed and synchronization information to enable it to continue decrypting the service.” The need to re-connect over the bi-directional channel is contrary to the claim limitation that “said at least two nodes exist on said second network for the entire period of said data transfer across said first network.” (Emphasis added.)

Therefore, appellant respectfully submits that Hakkarainen does not teach that “said at least two nodes exist on said second network for the entire period of said data transfer across said first network.” On the contrary, Hakkarainen expressly teaches **re-connecting** over the bidirectional network to obtain new seed and synchronization information for continuation of the data transfer.

Therefore, appellant respectfully submits that claim 4 overcomes this rejection. Claims 5, 7-9 and 13 depend from claim 4. Hence, claims 5, 7-9 and 13 also overcome this rejection.

**C. Argument against the rejection of claims 11-12 under 35 U.S.C. § 103(a) as being unpatentable over Ophir in view of Hakkarainen further in view of Pierce**

Claims 11-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ophir in view of Hakkarainen further in view of Pierce. This rejection is respectfully traversed.

Claims 11-12 depend from claim 1. Claims 11-12 are patentably distinguished over Ophir in view of Hakkarainen for at least the reasons discussed above in section A in relation to claim 1. Pierce does not cure the above-discussed deficiencies of Ophir in view of Hakkarainen. Therefore, appellant respectfully submits that claims 11-12 also overcome this rejection.

**D. Argument against the rejection of claims 11-12 under 35 U.S.C. § 103(a) as being unpatentable over Ophir in view of Hakkarainen further in view of Pierce**

Claims 11-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ophir in view of Hakkarainen further in view of Pierce. This rejection is respectfully traversed.

Claims 11-12 depend from claim 4. Claims 11-12 are patentably distinguished over Ophir in view of Hakkarainen for at least the reasons discussed above in section B in relation to claim 4. Pierce does not cure the above-discussed deficiencies of Ophir in view of Hakkarainen. Therefore, appellant respectfully submits that claims 11-12 also overcome this rejection.

## VIII. CONCLUSION

For at least the above reasons, appellants respectfully request that the rejections of claims 1-5, 7-9, and 11-17 be overturned.

Respectfully submitted,  
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## CLAIMS APPENDIX

### CLAIMS INVOLVED IN THE APPEAL

1. An apparatus for data transfer comprising:  
  
a plurality of nodes that are configured to be communicatively  
  
interconnected by both a first network which is a wireless home  
  
network and a second network which is a wired home network,  
  
wherein secured data is transferred between at least two nodes of said  
  
plurality of nodes on said first network only if said at least two  
  
nodes also exist on said second network.
2. The apparatus of claim 1 wherein unsecured data is freely transferred between  
said at least two nodes on said first network.
3. The apparatus of claim 1 wherein unsecured data is freely transferred between  
said at least two nodes on said second network.
4. The apparatus of claim 1 wherein said at least two nodes exist on said  
second network for the entire period of said data transfer across said first network.
5. The apparatus of claim 4 further including security negotiation for use of said first  
network wherein said security negotiation data is transferred between said at least two

nodes only over said second network.

7. The apparatus of claim 4 wherein said second network is a home electrical wiring network.

8. The apparatus of claim 4 further including at least one interface module for communicating with data resources.

9. The apparatus of claim 5 wherein said security negotiation further includes at least one authentication key.

11. The apparatus of claim 9 wherein said authentication key is periodically changed.

12. The apparatus of claim 9 wherein said authentication key is randomly changed.

13. The apparatus of claim 9 wherein said authentication key is established by one of the group consisting of the manufacturer, the service provider, the end user and a predetermined algorithm.

14. The apparatus of claim 1 wherein said wired home network has predetermined physical boundaries.

15. The apparatus of claim 1 wherein said wired home network is selected from the group comprising facility electrical wiring network, a home PNA telephone wiring network, a standard wired Ethernet network, and a coaxial cable network.

16. The apparatus of claim 14 wherein said wired home network further includes predetermined physical access points.

17. The apparatus of claim 16 wherein said physical access points include at least one selected from the group consisting of electrical outlets, phone jacks, and Ethernet jacks.

## EVIDENCE APPENDIX

There are no documents or items submitted under this section.

RELATED PROCEEDINGS APPENDIX

There are no documents or items submitted under this section.